STATE OF CALIFORNIA GRAY DAVIS, GOVERNOR

SEISMIC SAFETY COMMISSION

1755 CREEKSIDE OAKS DRIVE, SUITE 100 SACRAMENTO, CA 95833 (916) 263-5506 (916) 263-0594 FAX INTERNET: www.seismic.ca.gov



Seismic Safety Commission Minutes of Regular Meeting December 7, 2000 Napa City/County Library 580 Coombs Street Napa, California

Member Present Members Absent

Donald Manning, Chairman

Daniel Shapiro, Vice Chairman

Andrew A. Adelman Senator Richard Alarcon/ Chris Modrzejewski

Jerry Chang Bruce Clark

Bill Gates Staff

Scott Haggerty Richard J. McCarthy

Jeff Johnson Karen Cogan
Douglas E. Mochizuki Henry Reyes
Stan Moy Henry Sepulveda
Ashok S. Patwardhan Fred Turner

Ashok S. Patwardhan Fred Turr Patricia Snyder

I. CALL TO ORDER/ROLL CALL

The meeting of the Seismic Safety Commission was called to order by Chairman Donald O. Manning at 9:05 a.m.

II. CHAIRMAN'S REMARKS

Chairman Manning noted the Seismic Safety Commission celebrated its 25th anniversary the previous evening, and he thanked Commissioners Gates and Haggerty for hosting the event. Chairman Manning said Napa was chosen as the location for the celebration because of the recent earthquake and the Commission's commitment to improving seismic safety in California.

Chairman Manning acknowledged the efforts of Commissioner Chang and Senator Alarcon to compile a history of the Commission's achievements and important seismic safety legislation enacted over the past 25 years. He said the history document, prepared by Kip Wiley of the Senate Office of Research, was released for distribution as part of the Commission's 25th anniversary celebration. Chairman Manning expressed appreciation to Senator Alquist for his instrumental role in creating the Seismic Safety Commission and his strong support for seismic safety issues.

Chairman Manning noted the presentations at this meeting would focus on the September 3, 2000, earthquake and how the community responded and recovered. He said the magnitude 5.2 event occurred at 1:36 a.m., and the epicenter was located 6 miles northwest of Napa near the community of Yountville.

III. APPROVAL OF MINUTES

October 12, 2000

ACTION: Commissioner Snyder made a motion, seconded by Commissioner Haggerty, that:

The Commission approve the minutes of the October 12 meeting as proposed.

* Motion carried, 8 - 0 (Commissioners Adelman, Chang, and Johnson absent during voting).

IV. EXECUTIVE DIRECTOR'S REPORT

Annual Report to the Governor and Legislature

Executive Director Richard McCarthy drew attention to the draft annual report in the meeting packet. He asked commissioners to submit comments and suggestions to Ms. Cogan later in the day so the document can be finalized and sent to the Governor and Legislature by January 1.

ACTION: Commissioner Haggerty made a motion, seconded by Commissioner Gates, that:

The Commission approve the annual report as presented.

* Motion carried, 9 - 0 (Commissioners Adelman and Johnson absent during voting.)

Contracts

Mr. McCarthy noted 13 firms requested information in response to the Commission's request for proposals (RFP) for revising the *California Earthquake Loss Reduction Plan*, and three firms responded with proposals. The Commission's ad hoc committee, consisting of Commissioner Shapiro, Commissioner Snyder, Mr. Reyes, and Mr. McCarthy, reviewed the three proposals and unanimously recommends awarding the contract to Vanir Construction Management, Inc. Mr. McCarthy said the Commission authorized the ad hoc committee to award the contract at its last meeting.

"Quake Ready" Update

Mr. McCarthy noted the staff has been working with the Attorney General's Office, the Department of Education, the Governor's Office of Emergency Services (OES), the Assembly Insurance Committee, and the Senate Insurance Committee to authorize use of the "Quake Ready" videos and educational materials in California's public schools. He explained that the "Quake Ready" materials, featuring Shaquille O'Neal as a spokesperson, were developed by Strategi, a public relations firm, using the California Research and Assistance Fund. Because of the controversy surrounding former Commissioner Quackenbush's use of these funds, release of the materials was held up pending further legal review by the Attorney General's Office.

Mr. McCarthy reported that the interested agencies requested that in order to use the "Quake Ready" products, Strategi would receive no money, product ownership issues be resolved, and that the former Insurance Commissioner be removed from the final products. He said staff is developing a pilot project for review by the Attorney General and interested agencies to furnish the video series to 1,500 elementary schools. At an estimated cost of \$20 per set, approximately \$30,000 would need to be raised from private contributors to produce and mail the materials. These funds could be handled by a third-party entity, possibly a state agency or a private organization with approval by the Attorney General's Office. Mr. McCarthy noted the next step will

be to obtain consensus on the proposal from the organizations involved, and then approval from the Attorney General's Office, the Senate Insurance Committee, and the Assembly Insurance Committee. He added that the staff will try to provide a written draft of the proposal for review at the January Commission meeting.

Future Meeting Plans

Mr. McCarthy noted the Commission's January meeting in Palm Desert will focus on evaluating earthquake risks and mitigation measures for handicapped and disabled populations. The February meeting will take place in Sacramento. In March, the Commission will meet at Cal Tech to discuss seismic safety of schools and the status of the TriNet system. The Commission will meet in San Francisco in April, and the focus of that meeting will be on high storage rack systems used in warehouse-type stores.

V. COMMITTEE REPORTS

Planning and Budget Committee

Commissioner Gates noted the Commission's budget through the month of November shows about a 12 percent surplus, partly due to two unfilled staff positions. He said the Commission expects to hire a senior geologist and a staff services manager sometime after January 1, 2001.

Strong Motion Instrumentation Advisory Committee (SMIAC)

Commissioner Patwardhan reported that the SMIAC met in November and discussed its mission and plans for the future. There was consensus among committee members that the SMIAC's mission is to collect strong motion data and develop ways to utilize the data. Committee members agreed that far more instruments are needed: at the present time, California has approximately 400 strong motion instruments, primarily located in urban areas; covering the state adequately would necessitate about 4,000 instruments.

Commissioner Patwardhan proposed establishing two subcommittees, one to develop strategies and policies regarding needs and opportunities for strong motion instruments, and another focusing on strategies for enlarging the community of users.

ACTION: Commissioner Patwardhan made a motion, seconded by Commissioner Haggerty, that:

The Commission authorize creation of the two subcommittees as recommended.

Commissioner Adelman spoke in favor of the concept expressed in the motion. He noted most strong motion instruments are located in major cities, but there are gaps in many other areas of the state. Because the information obtained from the instruments can be very helpful, he supported expanding the program as proposed.

Commissioner Clark reported that he attended EERI's Sixth Annual Conference on Seismic Zonation in November. Some of the presentations at the conference dealt with Tokyo's use of gas shutoff valves with controls based on strong-motion accelerometers. He noted 10,000 valves will eventually be deployed in Tokyo. Commissioner Clark offered to provide additional information to interested commissioners.

Commissioner Clark added that he supports the creation of the two subcommittees proposed by Commissioner Patwardhan.

* Motion carried, 10 - 0 (Commissioner Johnson absent during voting).

Commissioner Moy drew attention to the letter to Dr. Savage sent as a follow-up to the Commission's October 12 hearing on gas shutoff valves. He noted he and Commissioner Haggerty were appointed to lead a task force to gather more information and develop a recommended position for the Commission. He said he wrote to Dr. Savage to enlist his assistance in making use of the existing Utilities Seismic Working Group.

Commissioner Moy added that the goal of the task force is to produce a one-page nontechnical summary for members of the public as well as a more technical summary for local governments and facilities managers.

VI. LEGISLATIVE REPORT

Director of Legislation Henry Sepulveda drew attention to his written summary of proposed legislative concepts for this year's legislative session. He reviewed and discussed the status of each of the ten items. He noted they include: 1) technical corrections to the Revenue and Tax Code; 2) a statewide disaster recovery plan; 3) tax credits and grants to encourage mitigation; 4) amendments to the Subdivision Map Act; 5) school emergency preparedness; 6) storage racks; 7) a general obligation bond for mitigation; 8) establishment of a permanent mitigation reserve fund; 9) PEER funding; and 10) yearly restoration of the Commission's earthquake investigations account.

III. APPROVAL OF MINUTES (Continued)

Commissioner Adelman asked to revisit the October 12 minutes. Referring to first line in the third full paragraph on Page 13, he suggested changing "said" to "asked if."

ACTION: Commissioner Haggerty, as maker of the original motion, and Commissioner Snyder, as seconder, agreed that:

The October 12 minutes be approved with the proposed amendment.

* Motion carried, 10 - 0 (Commissioner Johnson absent during voting).

VII. SEPTEMBER 2000 NAPA EARTHQUAKE

Chairman Manning welcomed the representatives of local, state, and federal government agencies and other presenters.

Senator Wes Chebro's Office

Ms. Laurie Puzo, representing Senator Wes Chesbro, welcomed the Seismic Safety Commission to Napa and extended her congratulations on the Commission's 25th anniversary. She noted Napa's experience planning for flooding helped facilitate earthquake response and recovery.

Ms. Puzo said Senator Chesbro plans to co-sponsor Senator Alarcon's bill regarding a statewide disaster plan. She noted other bills of interest during the coming legislative session include SB 12, providing local government property tax relief, and AB 44, allowing carryover of losses for tax accounting purposes.

United States Geological Service (USGS)

Dr. Jack Boatwright, United States Geological Service, used a series of overhead slides to explain seismological aspects of the magnitude 5.2 Yountville earthquake on September 3. He displayed a map and showed the location of the epicenter. He noted this particular fault had not been mapped previously. Dr. Boatwright

showed a shaking intensity map, a diagram of the underground area, strong motion records obtained from the Napa fire station, and a NEHRP soil classification map. He explained that soil types accounted for some of the differences in site response and damage levels.

Dr. Boatwright commented that recent seismicity in the North Bay area ringing the Rodgers Creek and Healdsburg Faults suggests that a major seismic rupture could take place within the foreseeable future. He noted this event could be four times stronger and last much longer than the September 3 earthquake.

City of Napa

Honorable Ed Henderson, Mayor, City of Napa, reported that local police and fire agencies responded quickly to the September 3 earthquake, and as a result, no vandalism occurred. He said the City of Napa already had an emergency alert team for flood control, and that system worked well responding to the earthquake as well. Mayor Henderson stated that many Napa homes and businesses experienced damage to walls, chimneys, and interior contents during the earthquake. He added that the city learned it is not as easy to identify earthquake damage as damage from floods and other disasters.

Mayor Henderson commended the people in the community for their cooperation and assistance during the post-earthquake recovery period. He said people in neighborhoods mobilized quickly, and as a result the recovery went smoothly. He noted legislators visited Napa in the days following the earthquake, and the Governor declared an emergency within a few days. He praised FEMA, OES, and the other agencies that participated in the one-stop local assistance center.

Commissioner Snyder asked how local schools fared in the earthquake. Mayor Henderson responded that schools remained open and counselors were available to assist students in dealing with the disruption. He said there was not much damage, either structural or nonstructural, to any of the school buildings.

Commissioner Haggerty expressed concern about school preparedness, and he asked if the local schools provide emergency kits for students and teachers. Mayor Henderson said he did not know if the schools had emergency kits. However, he noted there were no problems or criticisms regarding the schools.

Napa County Emergency Services

Mr. Neal O'Haire, Manager, Napa County Emergency Services, discussed the establishment and operations of the local assistance center (LAC) for earthquake victims. He noted the one-stop concept was most effective in providing access to assistance and help from local, state, and federal government agencies.

Mr. O'Haire reviewed some of the lessons learned in choosing a location, equipping and staffing the LAC, contracting for services, facility layout, coordinating efforts among the various agencies, and training the information providers. He said the LAC used the State Emergency Management System (SEMS) to assign staff functions and reporting responsibilities, and the system worked well.

Mr. O'Haire reported that in 57 days of operation, the LAC handled 5,264 clients, or an average of 90 each day. There were about 35 staff members at the LAC each day, and the total cost was about \$100,000. Mr. O'Haire said the LAC provided about \$27 million in assistance to victims. In addition, the City of Napa streamlined its plan-checking and permit process to expedite repairs. Mr. O'Haire noted the response of the public was good: over 98 percent of the people surveyed made positive comments; most liked the centralized one-stop center and the opportunity for face-to-face meetings with agency representatives. He emphasized that the team approach was a key to Napa's successful recovery.

City of Napa Building Department

Mr. Bruce Gunn, City of Napa Building Department, gave an overview of the Building Department's response to the earthquake and the lessons learned. He agreed with Mr. O'Haire that the LAC worked very well and provided quick relief to many disaster victims.

Mr. Gunn reported that the Building Department received many calls for damage inspections, and the staff soon found it necessary to call on the mutual aid system for outside help. In response, CALBO and OES sent teams of building officials to canvass the area and verify the safety of damaged buildings.

In terms of the lessons learned, Mr. Gunn noted that there was some inconsistency in red, yellow, and green tagging procedures. As a result, some damaged chimneys, originally yellow-tagged, were erroneously given green tags before complete repairs could be done. In addition, the City of Napa ran out of tagging supplies early on; staff members had to make photocopies and order new stock to keep up with the demand. Mr. Gunn noted that the city also would have benefited from having a policy in place regarding specific earthquake repair procedures.

In general, Mr. Gunn said, the City of Napa was able to handle the repair and recovery period well. He noted the SEMS process worked smoothly. He commended the city staff for their dedication and hard work during the days immediately following the earthquake. Mr. Gunn noted that the staff eventually created standardized notices for building placards, and that process saved time. The City of Napa also developed standard repair approaches for chimneys. Mr. Gunn urged the Seismic Safety Commission to work with other groups to develop standardized statewide repair methods to speed recovery after future disasters.

Commissioner Adelman commended the City of Napa for a job well done. He asked if Mr. Gunn had any comments on the mutual aid system. Mr. Gunn responded that because of the mutual aid system, the City of Napa was able to provide a timely and efficient response to damage inspection requests. He said one drawback was the inability of unionized employees from some cities to work long hours, and he suggested building into the work rules additional flexibility for emergency response situations.

Commissioner Chang questioned what could be done to minimize tagging inconsistencies. Mr. Gunn explained that all responders were well trained, but making the distinction between a yellow tag and a green tag entails individual and subjective judgments. Commissioner Adelman suggested referring to ATC-20 for additional guidance.

Governor's Office of Emergency Services (OES)

Mr. Paul Jacks, Governor's Office of Emergency Services, discussed OES' involvement in the earthquake response and recovery efforts. He said a regional emergency operations center (EOC) was established by 3:00 a.m. the morning of the earthquake. By 4:00 a.m., seismological experts conferred regarding the potential risk of larger earthquakes and aftershocks and concluded that the September 3 earthquake was unlikely to trigger other major seismic events. After daybreak, teams of building officials began damage assessments. The Governor received a request to declare an emergency on September 5, and a declaration was issued on September 7. Meanwhile, representatives of state and federal agencies began arriving in the area to set up a one-stop assistance center, and the LAC officially opened for business on September 18. Mr. Jacks noted OES helped fund the LAC, and FEMA provided hazard mitigation grants to assist the local government in providing relief to earthquake victims. He praised FEMA and the SBA for their support of the LAC effort.

Mr. Jacks said OES estimates the September 3 earthquake caused approximately \$4.2 million worth of damage, of which about \$2 million was eligible for disaster assistance.

Federal Emergency Management Agency (FEMA)

Mr. Mark Ghilarducci Federal Emergency Management Agency (FEMA), commended local and state government agencies, the federal Small Business Administration, the American Red Cross, and community volunteer groups for working together to facilitate Napa's recovery from the earthquake. He noted the cooperation and partnership among the participating agencies was a key to the LAC's success.

Mr. Ghilarducci reported that as of the end of November, nearly 5,000 earthquake victims had registered with FEMA. Of that number, nearly 4,000 received housing grants or rental assistance. Mr. Ghilarducci said FEMA provided a total of \$5.2 million in housing grants, plus \$146,000 in rental assistance. Even though some homeowners had earthquake insurance policies, most found their damage did not exceed their deductible limits. To address this unmet need, the California Senate held a hearing regarding the California Earthquake Authority and the appropriateness of the deductibles.

Mr. Ghilarducci said that as part of its activities in the LAC, FEMA participated in joint damage assessments, provided advice on retrofit guidelines, and published mitigation success stories to motivate property owners to improve the seismic safety of their buildings. Mr. Ghilarducci added that Napa is one of several California cities participating in FEMA's Project Impact, a pilot program to encourage mitigation and disaster preparedness.

Commissioner Johnson noted that Dr. Boatwright discussed the likelihood of a major seismic event on the Rodgers Creek Fault in the future, and he asked if FEMA tracks this kind of hypothesis. Mr. Ghilarducci responded that FEMA has an extensive program to look at potential damage from a number of hazards. Working in conjunction with USGS and California's Division of Mines and Geology, FEMA uses a computer hazard mapping system to identify areas of significant risk.

Small Business Administration (SBA)

Mr. Herb Johnston, Small Business Administration, explained that the SBA is the primary source of non-farm disaster loans. He reported that nearly 5,000 people submitted SBA loan applications as a result of the damage and losses suffered in the Napa earthquake; about 4,500 homes and 700 businesses were affected. The SBA approved nearly \$19 million in disaster loans, with about \$17 million going to homeowners victimized by the earthquake.

Mr. Johnston praised the local, state, and federal agencies for working well together at the LAC. He said the process went smoothly, primarily because of the high degree of cooperation among the agencies and members of the community.

Mr. McCarthy noted the Commission is in the process of revising the *California Earthquake Loss Reduction Plan*, and he asked if Mr. Johnston had any suggestions about ways to speed up the application process. Mr. Johnston said most victims received checks within seven to ten days of submitting their loan applications. He noted that using the FEMA teleregistration system helps facilitate the process. Mr. Johnston added that OES and local government agencies have been doing a good job publicizing the SBA program and providing application information.

California Earthquake Authority (CEA)

Mr. Dan Dyce, Disaster Response Manager, California Earthquake Authority, explained that the CEA was established in response to the lack of commercially available earthquake insurance after the Northridge earthquake. In 1995, the Legislature mandated offering a minimum disaster insurance policy to Californians, and the CEA was created in 1996 to underwrite the program.

Mr. Dyce reported that 18 carriers are now participating in the CEA program, representing about two-thirds of the California earthquake insurance market. In the Napa area, 2,800 homeowners carried policies through the CEA at the time of the September 3 earthquake. Although 170 claims were submitted, most did not exceed their deductible limits. Mr. Dyce said CEA approved only 7 claims, for a total of \$166,000. He added that the CEA has seen a 10 percent increase in policyholders in the Napa area since the earthquake.

Mr. Dyce noted CEA conducted on-site quality reviews to evaluate how well the LAC was assisting policyholders, and most of the people surveyed had positive comments regarding the timely, professional service they received. Although the CEA program has fairly high deductibles, neither the CEA nor the Department of Insurance received any complaints.

Mr. Dyce said CEA is taking a proactive approach to educating and advising its policyholders. As part of that outreach, letters are being sent to all policyholders in the Napa area to provide information on proper damage inspection and repair techniques.

Commissioner Johnson asked Mr. Dyce to explain the increase in policyholders since the earthquake. Mr. Dyce expressed his opinion that the Napa earthquake served as a wake-up call to many homeowners, who realized they could have suffered far more serious damage in a larger seismic event.

Commissioner Johnson asked about the average amount of the seven claims that were approved for a total of \$166,000. Mr. Dyce responded that most of the amount went to a single house in downtown Napa that suffered extensive damage. Commissioner Johnson asked what types of damage were observed. Mr. Dyce said most of the damage was due to structural problems like drywall cracks and chimneys rather than unmitigated hazards such as unstrapped water heaters.

Pacific Gas & Electric Company

Former Commissioner Lloyd Cluff, Pacific Gas & Electric Company, presented a summary of PG&E's response to the Napa earthquake. He started by saying that PG&E is the largest gas and electric utility in California, with a 70,000-square-mile territory covering most of northern California, running east to Nevada and south to Santa Barbara. Mr. Cluff displayed a map showing the major earthquake faults in California and noted there is a 70 percent probability of an earthquake exceeding a 6.7 magnitude in the San Francisco Bay Area during the next thirty years. He showed maps of PG&E's electric and gas systems and facilities.

Mr. Cluff displayed a map showing ground motions recorded for the September 3 earthquake. He noted there were 17 strong motion recording stations in the area. Mr. Cluff described the earthquake motion as a sharp, two-second jolt.

Mr. Cluff reported that the earthquake caused no damage to PG&E's electric systems, buildings, or transmission lines. However, there was minor damage to some of the older local distribution lines, poles, and circuit breakers, and these problems resulted in power outages for about 12,000 or 13,000 PG&E customers. In addition, some customers' equipment without surge protectors was damaged. PG&E was able to restore power to 98 percent of those affected customers by 10:00 a.m. the morning of the earthquake.

Mr. Cluff noted there were some minor gas system problems: about 30 leaks occurred, primarily located near water heaters. He said about 1,700 PG&E customers shut off their gas based on inappropriate instructions from the media, but the company was able to restore gas service to these customers by mid-morning. Mr. Cluff added that six automatic gas shutoff valves were activated, but no leaks occurred because all of these customers had braced their water heaters. He pointed out restoring gas service results in higher charges to PG&E customers.

Mr. Cluff demonstrated PG&E's GIS map server application, which allows rapid pinpointing of problem areas, identification of potential damage, and speedy post-earthquake response.

Commissioner Patwardhan asked if PG&E was surprised at the lack of damage to underground pipelines. Mr. Cluff responded that underground facilities are not impacted in small earthquakes, so the absence of damage was not a surprise in this event. He cautioned that underground utilities can be problems in major earthquakes, especially in areas with soft ground or soils prone to liquefaction. Commissioner Johnson asked if there were problems with Japan's underground utility system in the Kobe earthquake. Mr. Cluff said there was extensive damage because of the soft soil, liquefaction, and lateral spreading.

Commissioner Chang asked what percentage of PG&E customers in the Napa area had automatic gas shutoff valves. Mr. Cluff responded that PG&E has no way of knowing the exact amount because the shutoff devices can be installed without a permit or notification to PG&E. He commented that the gas shutoff valves offer consumers an extra measure of protection, but bracing water heaters and performing other simple mitigation measures would be a less expensive way of protecting property.

Commissioner Mochizuki asked if PG&E had considered a proactive automatic system shutoff. Mr. Cluff said PG&E already has excess flow shutoff valves. He added that PG&E believes shutoff valves with seismic triggers are inappropriate because of the possibility of false alarms. PG&E is researching smart systems, with triggers based on a combination of excess flow, pressure changes, and strong motion.

Commissioner Mochizuki commented that PG&E's GIS map server application would be a wonderful tool for other emergency responders, and he asked if the system can be accessed by outsiders. Mr. Cluff explained that the GIS system is proprietary to PG&E. He said PG&E is happy to cooperate and share information, but due to the potential for abuse by terrorists, access to the system is limited to PG&E employees only.

Wine Industry Seismic Hazard Project

Mr. Joshua Marrow, structural engineer, Simpson, Gumpertz & Heger, presented results of a three-and-a-half-year study of barrel stacking systems used in the wine industry. He explained that because of the high value of the wine stored in winery facilities and the long period required to realize investment returns, the industry has a strong interest in safeguarding its property and protecting the lives of its employees.

Mr. Marrow described three types of barrel stacking systems used in the wine industry and noted most companies use portable steel racks. Wine barrels are commonly stacked six high, or 18 feet tall. When filled with fluid, typical barrels weigh about 600 pounds. Mr. Marrow said his study involved testing the rack systems using shake tables, strength tests, and dropping. He showed a videotape of barrels being tested with each method.

Mr. Marrow stated the results of his study show that barrel stacks tend to shift and move during strong ground motions, and stacks can collapse if the shaking lasts longer than a few seconds. He noted full barrels performed better than stacked empty barrels, and the four-barrel racks fared better than two-barrel systems. He added that the Napa earthquake confirmed his research findings.

Mr. Marrow expressed concern that wineries could experience extensive damage and property loss in future large earthquakes. He noted falling barrel stacks can also contribute to structural collapse if they fall on walls, especially in tilt-up buildings. In addition, wineries store chemicals and other hazardous materials that could leak and cause damage during earthquakes. In order to address these problems, Mr. Marrow recommended developing performance and seismic safety standards for wineries, government support for risk assessments,

and additional research on new stacking systems and restraint technologies. He suggested an extensive education and outreach program to help the industry identify and mitigate risks.

Chairman Manning suggested welding tabs to the stacking systems to prevent barrels from sliding. Mr. Marrow stated that adding tabs to existing rack systems would probably double their cost. Instead, he said, a more cost-effective approach might be modifying the rack systems themselves.

KFWB Radio

Mr. Jack Popejoy, reporter, KFWB radio, discussed the role of the media in educating and informing the public about earthquakes. In order to convey reliable information and make public safety recommendations, media representatives first need access to accurate and useful information about seismic events. Mr. Popejoy said residents of southern California commonly look to the seismologists at Cal Tech for seismological details, but there is no centralized source of information for northern California. He noted scientists tend to concentrate on a few pieces of information, such as earthquake magnitude, duration, and location of the epicenter. Unfortunately, this tends to focus attention on the epicenter area only, when there could be significant damage elsewhere. Mr. Popejoy said media representatives also need to know how to advise people in disasters, because disseminating incorrect information can do more harm than good. As an example, he noted that after the Loma Prieta earthquake, OES was advising people in bed to get out of bed and seek shelter. He pointed out that this advice was not appropriate for victims of the Northridge earthquake.

Mr. Popejoy recommended that the Seismic Safety Commission take a more active role as a forum for public information and arbiter for advice to the public. He noted delivering a consistent message is crucial for public education. Mr. Popejoy suggested that the Commission explore ways of making better use of the media to deliver its seismic safety information to the public. He recommended emphasizing the benefits of mitigation and providing incentives such as insurance premium reductions to encourage mitigation. He proposed making government buildings comply with seismic safety provisions of building codes. He recommended teaching more about earthquakes as part of the public school curriculum in California.

Mr. Popejoy observed that the Internet could be a good tool for disseminating useful public information. He recommended that the Commission expand its Internet presence by publishing shake map, damage projections, and scenario-specific advice online. Mr. Popejoy noted that scientists are currently working on an early-warning pilot program that may produce useful benefits for the future.

Commissioner Clark noted that the recently released shake maps provide the public with extremely valuable information about specific seismic events. He recommended that the Commission highlight the availability of these maps through future programs and the Commission Web site. He also supported the need for more strong motion instruments throughout the state.

Commissioner Snyder asked Mr. Popejoy for suggestions as to improving the quality of information disseminated through the media. Mr. Popejoy recommended considering supplying television and radio stations with prerecorded messages to be aired after major disasters to ensure a consistent, uniform approach. He suggested providing more computer-driven scenario-specific information, possibly sorted by zip codes.

Commissioner Chang noted that presentations at the ABAG conference last year focused on reasons why more people do not retrofit their homes and buildings. He commented that steps need to be taken to raise public awareness about the benefits of retrofitting. Mr. Popejoy observed that the media currently has little incentive to push retrofitting. He recommended developing a program of media outreach to identify media representatives who are willing and able to work with the Commission to deliver seismic safety messages.

Chairman Manning thanked all the presenters for their information. He also expressed appreciation to the City of Napa for hosting the meeting.

VIII. OPEN PUBLIC COMMENTS

Chairman Manning noted he had a couple requests from people who wanted to address the Commission, and he suggested taking their comments under the "Good of the Meeting" part of the agenda.

IX. MISCELLANEOUS

There were no miscellaneous items brought to the Commission's attention.

X. GOOD OF THE MEETING

Charles Watson, author of the "SeismoWatch" newspaper maps and information, reported that four more newspapers have begun including his column. He thanked the Commission for its encouragement and support. He also congratulated and commended the Commission for its outreach to the Napa area.

Mr. Watson suggested devoting some discussion at a future meeting to ways of improving media relations and outreach. He noted that presenters like Mr. O'Haire might be willing to make presentations to other communities regarding Napa's experiences with LAC management and emergency response.

Chairman Manning thanked Mr. Watson for his comments.

XI. ADJOURNMENT

There being no further business, Commissioner Chang made a motion, seconded by Commissioner Johnson, that the meeting be adjourned. The Commission meeting was adjourned at 1:04 p.m.

Approved by:

Richard McCarthy Executive Director